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6	BEFORE THE STATE OF WASHINGTON ENERGY FACILITY SITE EVALUATION COUNCIL		
7	In the Matter of Application No. 96-1,		
8	Olympic Pipe Line Company	EXHIBIT(JS-T)	
9 10	Cross Cascade Pipeline Project		
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15	PREFILED DIRECT TESTIMONY		
16	WASHINGTON DEPARTMENT OF FISH AND WILDLIFE		
17	WITNESS: JEFF SKRILETZ		
18	(Oil Spill Impacts to Fig	sh and Wildlife Resources)	
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1	Q:	Please state your name, business address, position, professional experience, and
2		education.
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4	A:	My name is Jeff Skriletz. My business address is 600 Capitol Way North, Olympia, WA
5		98501-1091. I am a Fish and Wildlife Biologist 4 on the Washington Department of Fish
6		and Wildlife Oil Spill Team. My duties include planning for and responding to oil spills
7		statewide. I participate in the natural resources damage assessments and the coordination
8		and implementation of restoration projects. My position also supervises the Oiled
9		Wildlife Rescue Coordinator. I, and the other staff on the Spill Team, serve as the State's
1011		experts for protecting and restoring the public's fish and wildlife resources that have been
12		impacted by oil spills.
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14		I started with the Department in 1978 as a Wildlife Control Agent for the Coastal Region.
15		In 1988, I transferred to an Area Habitat Biologist position and was responsible for all
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17		freshwater habitat issues in six counties. Finally, I took a biologist position with the Oil
18		Spill Team when it was created by the Legislature in 1991. I have a Bachelor's Degree in
19		Biology from Western Washington University. During my career, I have taken courses
20		on the effect of oil on wildlife, wildlife rehabilitation, wildlife necropsy, fish health, fish
21		kill investigation, the incident command system, and hazmat. I have participated in over
22		fifty oil spill drills and have responded to over a hundred oil spills of various sizes.
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25	Q:	What experiences have you had related to oil pipeline spills?

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I have responded to two oil pipeline spills while serving on the Oil Spill Team. Both occurred in 1996, along the existing Olympic Oil Pipeline. The first was on March 23, 1996, when approximately 310 gallons of diesel spilled into Spencer Creek, a tributary to the Kalama River in Southwestern Washington. The spill went undetected by the pipeline company and was eventually reported by a landowner along the pipeline route. The oil pooled up in a field and eventually flowed 200 feet down an unnamed tributary to Spencer Creek. By the time our team was notified and were able to respond, most of the oil had passed through or had evaporated from the creek. On our initial site visit we observed and collected several dead and dying juvenile coho salmon in the stream. Since fish that have been affected by oil are quickly removed from the environment by predators, we were unable to determine the total impact of the spill.

After the initial plume of oil passed through the creeks, shoreline vegetation remained oiled and continued to release oil into the water. The clean-up contractors hired to clean the streams did a thorough job, but unfortunately the removal of oiled vegetation and trampling of the sensitive shorelines certainly caused additional negative impacts. The additional impacts potentially caused harm to fish and amphibians as well as the insects and crustaceans that contribute to the streams' food chain.

The second pipeline spill occurred on or around June, 17, 1996. The date the pinhole-sized leak began is unknown, but the pipeline company estimated the pipeline had leaked for two to three days. The escaped product entered Deadwater Slough, a tributary to the Snohomish River near Everett. The Washington Department of Ecology determined that approximately 1, 050 gallons of gasoline and diesel had been spilled. As with the Spencer Creek spill, this leak went undetected for an unknown length of time. No

impacted fish or wildlife were observed when our team arrived at the site. This slough is isolated from the Snohomish River by a tidegate, and little if any salmonid use would be expected. However, the slough has a marshy shoreline which is excellent habitat for waterfowl and herons, as well as numerous species of small mammals, amphibians and warmwater gamefish.

Q: What effects on fish and wildlife could be expected during an oil spill in freshwater habitats along the proposed pipeline route?

A: There are volumes written on this topic and yet we are just beginning to understand the long term, chronic effects of oil on fish and wildlife. Simply put, oil is toxic to fish and wildlife. There are numerous pathways that oil can take to affect an organism.

The first thing that most people visualize when they think of oiled wildlife is a severely coated bird. These images that we saw on the nightly news during the *Exxon Valdez* and Washington's *Tenyo Maru* spills were the result of crude oil and bunker oil spills. The products carried by the proposed pipeline are diesel and gasoline, which are refined forms of oil. The effects of these refined products are different, but every bit as dangerous to fish and wildlife. Whether the creature is a mallard, a mink or a garter snake, the most acute pathway is through direct oiling. Oil absorbed through the skin, or ingested while feeding on oiled prey, or while grooming or preening, can lead to mortality. In addition, inhalation of the lighter oil fractions can also lead to mortality.

Fish, amphibians and even crustaceans such as crayfish are also vulnerable, especially as eggs and larvae. Many sub-lethal effects of exposure can lead to reduced survival. Examples of sub-lethal effects are reduced reproduction; liver, kidney and intestinal necrosis; lesions; tumors; reduced growth; disruption of chemoreception and homing signals in fish; and reduced locomotor activity and predator avoidance. Indirect negative effects may include loss of habitat (oiled vegetation) and reduction in prey populations.

As the proposed pipeline route passes through many different habitats, various species of fish and wildlife become vulnerable. When considering potential impacts of a spill in a water course, we must consider not only those areas immediately around the pipeline, but those habitats many miles downstream. Several other Washington Department of Fish and Wildlife biologists will be expanding on species at risk in their area but I believe the protection of some species cannot be over-emphasized.

Due to their secretive nature, the ranges of several reptiles and amphibians are not fully known and may be found along the pipeline route. The sharptail snake is a rare species, often found in wet habitats. One of the few locations known in Washington is near the route by Cle Elum. Oil spills and pipeline construction may negatively impact this reptile. The tailed frog, a State monitor species, occurs along several mountain streams along the route. Other rare species such as the Oregon spotted frog and the northern leopard frog possibly occur in wetlands along the pipeline path. Numerous critical stocks of salmon and the bull trout occur at stream crossings or are found downstream.

1	Q:	In your years of responding to oil spills, have you developed any concerns about oil
2		pipelines? If so, are there any recommendations you might have?
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4	A:	I realize that technology has made some great strides forward, but I am still very
5	A.	
6		concerned about leak detection. Even with state-of-the-art sensors, small, chronic leaks
7		will continue to go undetected until observed and reported by citizens. Although the
8		volume of these leaks may seem small when compared to the millions of gallons pumped
9		through the pipeline, small spills, and the resulting cleanup, can be devastating to
10		sensitive wetlands and small streams. After eight years of responding to spills, it has
11		become obvious that oil spilled into flowing water is virtually impossible to contain or
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13		recover. A sizeable spill in any flowing water will eventually drain into rivers or lakes.
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15		As with all oil spills, prevention is essential, but spills will continue to occur. To
16		minimize the impacts from spills on fish and wildlife, I recommend the following:
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18		1. Until the technology can solve this problem, a continual monitoring schedule for
1920		the entire pipeline is the only way to detect small leaks before they become big spills. To
21		be effective, this should be performed by trained personnel, actually on the ground, rather
22		than fly overs or drive bys. Counting on citizens to stumble across spills is not an
2324		acceptable option, especially since this pipeline travels through some very remote areas.
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26		2. Automatic shut off valves should be positioned on both sides of major stream and

1	river crossings. Depending on the lay of the land, when a pipeline break occurs, hundreds
2	of thousands of gallons can drain downhill to the point of the break. Unfortunately, the
3	lowest points in the pipeline route are often streams and rivers.
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6	3. As the technology for leak sensors and shutdown valves advances, it should be
7	required that the pipeline be updated on a continuing basis.
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9	4. As we've learned on past pipeline spills, determining fish and wildlife impacts
10	after a spill can be virtually impossible. Little is known about the many drainage basins
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12	the pipeline crosses. I suggest the pipeline proponents conduct fish and wildlife baseline
13	surveys at all water crossings to an agreed upon point downstream. Of special concern
14	are those species which are State or Federally listed, or appear in the Washington
15	Department of Fish and Wildlife's Priority Habitat and Species database.
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17	END OF DIRECT TESTIMONY
18	I declare under penalty of perjury that the above testimony is true and correct to the best
19	of my knowledge.
20	EXECUTED this day of February, 1999.
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22	JEFF SKRILETZ
23	JEIT SIKKLEIZ
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